



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/903,437   | 07/11/2001  | Hironobu Kiyomoto    | 15115/005001        | 8917             |
| 22511  | 7590        | 06/01/2005           | EXAMINER            |                  |
| OSHA LIANG L.L.P.<br>1221 MCKINNEY STREET<br>SUITE 2800<br>HOUSTON, TX 77010 |             |                      | LUU, THANH X        |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2878                |                  |

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/903,437 | <b>Applicant(s)</b><br>KIYOMOTO ET AL. |  |
|                              | <b>Examiner</b><br>Thanh X. Luu      | <b>Art Unit</b><br>2878                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16,25 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16,25 and 38-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>042005</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 11, 2005 has been entered.

Claims 16, 25 and 38-40 are currently pending.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Eisenberg (U.S. Patent 5,930,055).

Regarding claims 16, Eisenberg discloses (see Fig. 8) an optical component, comprising: a transparent body (210) having a reflective plane (212) and a curved reflective surface (214) which faces the reflective plane; a projection (222) provided at a center of the reflective plane; and a recess (at 218) provided on the curved reflective surface, wherein the thickness of the transparent body is smaller than a diameter of an outer edge of the curved reflective surface, wherein a length between a center of the

Art Unit: 2878

projection and a boundary (any point where the projection and the plane touches) between the projection and the reflective plane is smaller than a length between the boundary and the outer edge of the curved reflective surface, wherein the curved reflective surface except the recess is covered with high reflective material (220), and wherein the curved reflective surface indirectly receives light passing through the recess, and the reflective plane reflects incident light directly passing through the recess and passes the light reflected by the curved reflective surface through the reflective plane.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenberg.

Regarding claim 40, Eisenberg discloses the claimed invention as set forth above. Eisenberg also discloses (see Fig. 8) the size and shape of the light reflecting portion is selected such that a mirror focus of the light-emitting element (300) with respect to a plane including the reflective plane is defined as a focal point of the light reflecting portion as claimed. Eisenberg does not specifically a circuit board as claimed. However, it is notoriously well known in the art to mount light emitting elements on circuit boards for connection to other circuitry or to a power source. Thus, it would have

Art Unit: 2878

been obvious to a person of ordinary skill in the art at the time the invention was made to provide such a circuit board the apparatus of Eisenberg to properly mount and power the device.

6. Claims 25 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenberg in view of Perissinotto et al. (U.S. Patent 5,485,317).

Regarding claims 25 and 39, Eisenberg discloses the claimed invention as set forth above. Eisenberg does not specifically a transparent resin between the optical component and the light-emitting element and a plurality of optical components. Perissinotto et al. teach (see Figs. 2 and 3) a transparent resin (in cavity 21) as claimed and a plurality of optical components. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a resin and a plurality of components in the apparatus of Eisenberg in view of Perissinotto et al. to fix the light-emitting element with respect to the optical element and provide brighter illumination.

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenberg in view of Godbillion et al. (U.S. Patent 6,264,347).

Regarding claim 38, Eisenberg discloses the claimed invention as set forth above. Eisenberg does not specifically a fresnel lens shaped pattern as claimed. Godbillion et al. teach (see Fig. 4) a fresnel lens pattern is formed on a curved reflective surface in a similar device. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide such a fresnel lens pattern in the apparatus of Eisenberg in view of Godbillion et al. to obtain a desired pattern of

illumination.

***Response to Arguments***

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh X Luu  
Primary Examiner  
Art Unit 2878

05/2005